

Home > Statistics > Detailed methodology information > Information papers > Use of Price Indexes in Contracts

## Use of Price Indexes in Contracts

Discusses issues to be taken into account by parties considering including an Indexation Clause in a contract using an ABS published price index

**Released** 6/06/2022

#### On this page

<u>Introduction</u>

The role of the ABS in respect of indexation clauses

<u>Important disclaimer</u>

What price indexes are published by the ABS?

General matters to consider when developing indexation clauses using a price index

#### Introduction

Price indexes published by the Australian Bureau of Statistics (ABS) provide summary measures of the movements in various categories of prices over time. They are published primarily for use in Government economic analysis.

Price indexes are also often used in contracts by businesses and government to adjust payments and/or charges to take account of changes in categories of prices (Indexation Clauses).

This paper sets out a range of issues that should be taken into account by parties considering including an Indexation Clause in a contract using an ABS published price index.

## The role of the ABS in respect of indexation clauses

Although the ABS acknowledges that the various price indexes it publishes are used by businesses and government to adjust payments and/or charges, it neither endorses nor discourages such use.

The role of the ABS as the central statistical authority for the Australian government

includes publishing price index data, and broadly explaining the underlying methodology and general limitations on such data. The ABS may provide information about what price indexes are published by it, but will not recommend or comment on the use (or otherwise) of the price indexes. In addition, the ABS does not advise, comment or assist in preparing or writing contracts and nor does it provide advice on disputes arising from contract interpretation.

### Important disclaimer

This paper is intended to summarise information about the various price indexes currently published by the ABS and some of the issues which should be considered by persons in deciding to use such price indexes in Indexation Clauses. It is a brief description only and is not a comprehensive or exhaustive description of price indexes or of the issues which should be considered by persons in deciding to use price indexes or Indexation Clauses.

Neither the ABS, the Commonwealth of Australia, nor their employees, advisers or agents will in any way be liable to any person or body for any cost, expense, loss, claim or damage of any nature arising in any way out of or in connection with the statements, opinions or other representations, actual or implied, contained in or omitted from this paper or by reason of any reliance thereon by any person or body. This paper is not business, investment, legal or tax advice and persons should seek their own independent professional advice in respect of all matters in connection with the use of price indexes published by the ABS and their use in Indexation Clauses.

## What price indexes are published by the ABS?

The Consumer Price Index (/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release). (CPI) is regarded as Australia's key measure of inflation. It is designed to provide a general measure of price inflation for the Australian household sector as a whole. The CPI measures changes over time in the prices of a wide range of consumer goods and services acquired by Australian metropolitan households and it is published quarterly, four to five weeks after the end of the reference quarter. It is revised only in exceptional circumstances, such as to correct a significant error. As is the case with all price indexes, the reference base (i.e. the period in which the index is set equal to 100.0) will be changed periodically. The index number levels for all periods will be changed by this process and it may also result in differences, due to rounding, between the percentage changes published on the old base and those on the new base.

The monthly Consumer Price Index indicator (/statistics/economy/price-indexes-and-

inflation/monthly-consumer-price-index-indicator/sep-2022) provides a timely indication of inflation. Like the quarterly CPI, the monthly CPI indicator provides a general measure of prices for goods and services purchased by Australian metropolitan households. However, the monthly CPI indicator has some limitations, including that it may be routinely subject to revision, in contrast to the quarterly CPI which is only revised in exceptional circumstances. It is published on a monthly basis, generally four to five weeks after the end of the reference month. The exception to this is the November publication which will occur in January rather than December. As is the case with all price indexes, the reference base (i.e. the period in which the index is set equal to 100.0) will be changed periodically. The index number levels for all periods will be changed by this process and it may also result in differences, due to rounding, between the percentage changes published on the old base and those on the new base.

Several <u>Producer Price Indexes (/statistics/economy/price-indexes-and-inflation/producer-</u> price-indexes-australia/latest-release) (PPIs) are produced to measure the price change of products as they leave the place of production or as they enter the production process. This price change is measured from the perspective of the industries that produce goods and services. PPIs can be constructed as either output measures or input measures. Output indexes measure changes in the prices of goods and/or services sold by defined industry groupings while, input indexes measure changes in the prices of goods and/or services purchased by a particular industry grouping. PPIs for selected manufacturing, construction, mining and service industries, and Final Demand (which measures the price change of products consumed with no further processing), are published quarterly, four to five weeks after the end of the reference quarter. Once published, the PPIs are revised infrequently, sometimes to incorporate improved methods in one or more of the components and occasionally to correct an error. As is the case with all price indexes, the reference base (i.e. the period in which the index is set equal to 100.0) will be changed periodically. The index number levels for all periods will be changed by this process and it may also result in differences, due to rounding, between the percentage changes published on the old base and those on the new base.

The International Trade Price Indexes (/statistics/economy/price-indexes-and-inflation /international-trade-price-indexes-australia/latest-release) (ITPIs) are intended to broadly measure changes in the prices of goods imported into Australia (the Import Price Index (IPI)) and goods exported from Australia (the Export Price Index (EPI)). The prices measured in the indexes exclude import duties, and exclude freight and insurance charges incurred in shipping goods between foreign and Australian ports. As the prices used in the indexes are expressed in Australian currency, changes in the relative value of the Australian dollar and overseas currencies can have a direct impact on price movements for the many commodities that are bought and sold in currencies other than Australian dollars. Both the

IPI and EPI are published quarterly, four to five weeks after the end of the reference quarter. The IPI and EPI are not often revised. As is the case with all price indexes, the reference base (i.e. the period in which the index is set equal to 100.0) will be changed periodically. The index number levels for all periods will be changed by this process and it may also result in differences, due to rounding, between the percentage changes published on the old base and those on the new base.

The Wage Price Index (/statistics/economy/price-indexes-and-inflation/wage-price-indexaustralia/latest-release) (WPI) broadly measures changes in the wages paid by Australian businesses to employees and it is compiled and published quarterly, about six to seven weeks after the end of the reference quarter. Individual indexes are compiled for various combinations of State/Territory, sector (private/public), and broad industry groups. The 'headline' wage price index is that for the total hourly rates of pay, excluding bonuses, for Australia, and it is published in original, seasonally adjusted and trend terms. The seasonally adjusted and trend series for some quarters are revised as extra quarters are included in the series analysed for seasonal influences, but the non-seasonally adjusted (i.e. original) series is not revised in normal circumstances. As is the case with all price indexes, the reference base (i.e. the period in which the index is set equal to 100.0) will be changed periodically. The index number levels for all periods will be changed by this process and it may also result in differences, due to rounding, between the percentage changes published on the old base and those on the new base.

The Selected Living Cost Indexes (/statistics/economy/price-indexes-and-inflation/selected-living-cost-indexes-australia/latest-release). (SLCIs) are designed to measure the impact of changes in out-of-pocket living expenses of four Australian household types; employee, age pensioner, other government transfer recipient and self-funded retiree households. This also includes the Pensioner and Beneficiary Living Cost Index (PBLCI) which is designed to assess the impact of changes in out-of-pocket living expenses of households whose principal source of income is from government pensions and benefits. These living cost indexes are analytical series produced as a by-product of the CPI, with the main conceptual difference being the SLCIs are constructed on an outlays basis, while the CPI is constructed on an acquisitions basis. The SLCIs are published quarterly, approximately one week after the CPI. It is revised only in exceptional circumstances, such as to correct a significant error. As is the case with all price indexes, the reference base (i.e. the period in which the index is set equal to 100.0) will be changed periodically. The index number levels for all periods will be changed by this process and it may also result in differences, due to rounding, between the percentage changes published on the old base and those on the new base.

Price indexes covering a wide range of economic transactions are produced as part of the National Accounts. Two types of national accounts based price index are published. The first

type is referred to as chain price indexes which are calculated for all expenditure components and subcomponents of Gross Domestic Product (GDP). The components are: government consumption, household consumption, private capital formation, public capital formation, and imports and exports of goods and services. Chain price indexes are also calculated for GDP and other macroeconomic aggregates such as Domestic Final Demand and Gross National Expenditure. Chain price indexes use as their weights the volumes of expenditure in the previous financial year (ending 30 June). The second type of price index is referred to as implicit price deflators (IPDs) which are compiled at the same levels as for the chain price indexes but which use for their weights the volumes of expenditure in the current period. IPDs have long been used to provide macro-economic measures of price change and are usually used in seasonally adjusted form. Both chain price indexes and IPDs are compiled quarterly and are published roughly two months after the reference period. Unlike the other price indexes listed above, the National Accounts price indexes are often revised, sometimes to a significant extent. In addition, they are re-referenced to a new base year every year, so the level of the index changes regularly, although the percentage changes for earlier periods are not normally affected by this process, other than for rounding differences. These two characteristics are important considerations if National Accounts price indexes are to be used in contracts.

No representation or assurance is given that any ABS published price indexes are accurate, without error or appropriate for use by persons or that the ABS will continue to publish any of the price indexes, publish them at a particular time or that the methodologies for their determination will not be changed or that they will be suitable for use in any Indexation Clauses.

# General matters to consider when developing indexation clauses using a price index

Considerable care should be taken when considering and using Indexation Clauses. Appropriate professional advice should be obtained when considering the use of an Indexation Clause or any ABS published price indexes.

The following are some general matters to consider when considering an ABS published price index in an Indexation Clause. It is not an exhaustive list. These matters are provided subject to the disclaimer outlined above.

#### Establish the base payment, selling or purchase price subject to indexation.

Specify the item subject to indexation as precisely as possible (e.g. rent, wage rate, commodity, etc.). Provide the effective date (e.g. quarter or year) of this base price, because

it is the period from which the base payment, etc. will be indexed. Indicate the relationship between the effective date of the base payment, etc. and the price index being used in the indexation (e.g. a contract coming into effect on 5 January 2017 could have a price indexed using the most recent available quarterly data (in this case, September quarter 2016) as its starting point or by using the 2015-16 financial year as the starting point, depending on the intent of the parties).

#### Select an appropriate index or indexes.

The index or indexes selected will affect the price change recorded and should be chosen carefully to best represent the item subject to indexation and the intention of the parties.

#### Clearly identify the selected index and cite an appropriate source.

The Indexation Clause of a contract should identify the selected index by its complete title and any identifying code. For example, in the case of the CPI, it should be specified whether the index to be used is the Quarterly All groups CPI, or a selected sub component index of the Quarterly CPI, and also whether it is the weighted average of the eight capital cities or for a particular city. In the case of PPIs, the broad alternatives that could be specified are commodity, or industry based indexes, or Final Demand. The specific component index being used should be explicitly identified. For WPI, the broad characteristics that could be specified are national, state or industry group indexes. With respect to the SLCIs, the index should be identified by household type. Contracting parties should cite specific index series rather than table numbers and/or table titles in their indexation contracts because table numbers and the contents of tables are subject to change.

#### State the frequency of price adjustment.

The Indexation Clause should specify the frequency at which price adjustments are to be made, such as quarterly, half yearly, annually etc. It may be useful to set out the method to be used in calculating the indexation factor, particularly if the indexation is half-yearly or annually. For example, different results are generally obtained for annual estimates calculated as the change in the latest quarter over the same quarter of the preceding year (e.g. June quarter 2017 over June quarter 2016) compared with those calculated as the average of the latest four quarters over the average of the preceding four quarters (e.g. the average of the four quarters from September quarter 2016 to June quarter 2017 over the average of the four quarters from September quarter 2015 to June quarter 2016). Similar issues apply to half yearly changes.

#### Provide for renamed, varied or discontinued price indexes.

Occasionally price indexes can be reviewed or restructured, which may result in some component index series being renamed, discontinued or the timing of the publication of the

index changed. Sometimes an index is permanently discontinued (for example, when a commodity declines in market importance). Indexation Clauses should contain a default mechanism for determining an equivalent appropriate index or price adjustment mechanism should this occur.

#### Provide for potential revisions to the price index data.

The quarterly and annual movements recorded by the ABS price indexes are not often revised (apart from the seasonally adjusted wage price index and trend wage price index, which can be revised as extra terms are added to the end of the series). Generally, situations in which revisions do occur include correcting an error that has arisen in the data first published. It could be useful for parties to set out agreed procedures to deal with the possibility of revisions occurring. For example, an Indexation Clause could state that a price is to be indexed by the percentage change first published in the relevant (indexation) series for each period covered by the contract, or it could be indexed by the latest available data at the point at which the indexation clause takes effect.

## Avoid locking indexes used for Indexation Clauses into any particular reference base period.

Occasionally the reference base period of a price index (i.e. the period in which the index is set equal to 100.0) can be changed. This will result in a change in the index level from that which was previously available. Relative movements of any series over time, however, are not generally affected by a reference base change (except for rounding differences). Indexation Clauses should be drafted so that the parties to them are not adversely affected by a change to the reference base period of a price index.

#### Define the formula for the price adjustment calculation.

Often the change in payments or price is directly proportional to the percentage change in the selected index between two specified time periods. The following CPI example, which has a reference base year of 2011-12 = 100.0, illustrates the computation of percentage change:

Index number for the All Groups CPI for Sydney in 2016-17 = 111.1 less index number for the corresponding series in 2015-16 = 108.9 Change in index points = 2.2 Percentage change  $2.2 / 108.9 \times 100 = 2.0\%$ 

#### Allow for negative price movements.

Any potential variations from the recorded price movements should be explicitly set out. For example, in some Indexation Clauses, there is no change in the contract price in a period in

which there is a fall in the price index being used for indexation. In some cases, there will be a catch up once the index rises again.

For further information about ABS price indexes, contact the Customer Assistance Service via the ABS website <u>Contact Us (/contact-us)</u> page. The <u>ABS Privacy Policy (/about/legislation-and-policy/privacy/privacy-abs)</u> outlines how the ABS will handle any personal information that you provide to us.